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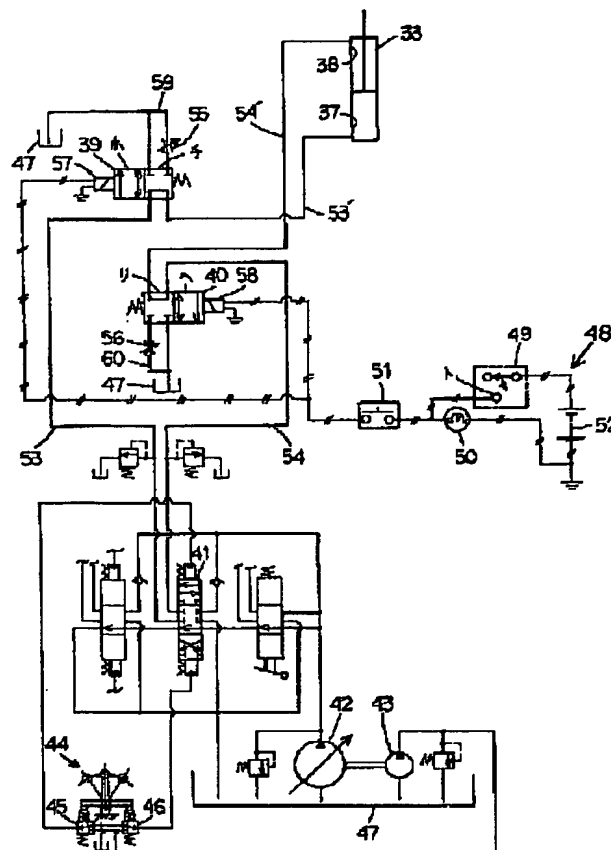
APPLICATION DATE : 06-12-96
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APPLICANT : KOBELCO KENKI ENG KK;

INVENTOR : SAWA HIDEKAZU;

INT.CL. : E02F 9/22 F15B 13/10

TITLE : FLOATING DEVICE OF HYDRAULIC CYLINDER



ABSTRACT : PROBLEM TO BE SOLVED: To improve efficiency of rolling compaction working by providing a float change-over valve in a supply and discharge circuit communicating with a boom cylinder and slowly controlling extension and contraction of the boom cylinder.

SOLUTION: At the time of rolling compaction working, a float selection switch 49 is changed over to a contact point. Float two-position solenoid change-over valves 39, 40 are provided. Next, when a boom cylinder 33 is made a floating state and extension operation or contraction operation of an arm cylinder is performed, the boom cylinder 33 contracts correspondingly to the extension and contraction operation of the arm cylinder. As soon as oil of the bottom side oil chamber 37 of the boom cylinder 33 is returned to a working oil tank 47 through a pipe 59, oil is sucked and supplied to a rod side oil chamber 38 through a pipe 54 so that the inside of the rod side oil chamber 38 is not under negative pressure. In other words, when the boom cylinder 33 in the floating state is extended and contracted, contraction change speed is slowly controlled since oil discharged and supplied from the rod side oil chamber 38 and the bottom side oil chamber 37 passes through a variable throttling part 56.

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